

We claim:

1 1. A pump for moving a product, comprising:
2 a vacuum chamber having a product inlet, a product outlet, a vacuum port, and an
3 agitator inlet port;
4 a vacuum source coupled to said vacuum port for providing a vacuum to said vacuum
5 chamber whereby product is drawn into said chamber through said product inlet;
6 and
7 a product discharge valve coupled to said product outlet for allowing said product to
8 be removed from said vacuum chamber; and
9 wherein said agitator inlet port is disposed such that an agitating fluid entering said
10 chamber through said agitator inlet port will impinge on said product prior to said
11 product entering said product discharge valve.

1 2. A pump according to Claim 1, wherein said vacuum source includes an air pump
2 having an intake coupled to said vacuum port and an output coupled to said agitator inlet port.

1 3. A pump according to Claim 2, further comprising a cooling apparatus coupled
2 between said output of said air pump and said agitator inlet port.

1 4. A pump according to Claim 3, further comprising a regulating valve coupled between
2 said output of said air pump and said agitator inlet port.

1 5. A pump according to Claim 2, further comprising a regulating valve coupled between
2 said output of said air pump and said agitator inlet port.

1 6. A pump according to Claim 1, further comprising a compressed fluid supply source
2 coupled to said agitator inlet port.

1 7. A pump according to Claim 1, further comprising a regulating valve coupled between
2 said compressed fluid supply source and said agitator inlet port.

1 8. A pump according to Claim 1, further comprising a regulating valve coupled to said
2 agitator inlet port to control the flow rate of said agitating fluid into said chamber.

1 9. A pump according to Claim 1, wherein:
2 said product outlet is disposed near the bottom of said vacuum chamber; and
3 said agitator inlet port is disposed adjacent said product outlet.

1 10. A method for moving a product, comprising:
2 drawing said product into a vacuum chamber;
3 removing said product from said vacuum chamber via a product discharge valve; and
4 agitating said product with an agitating fluid to prevent clogging of said product
5 discharge valve.

1 11. A method according to Claim 10, wherein:
2 said step of drawing said product into a vacuum chamber includes applying a vacuum
3 to said vacuum chamber via an air pump; and
4 said step of agitating said product includes supplying said agitating fluid from an
5 output of said air pump.

1 12. A method according to Claim 11, further comprising a step of cooling said agitating
2 fluid before said agitating fluid is used to agitate said product.

1 13. A method according to Claim 12, further comprising the step of regulating the flow
2 of said agitating fluid used to agitate said product.

1 14. A method according to Claim 11, further comprising the step of regulating the flow
2 of said agitating fluid used to agitate said product.

1 15. A method according to Claim 10, wherein said step of agitating said product includes
2 agitating said product with a fluid supplied by a compressed fluid source.

1 16. A method according to Claim 15, wherein said step of agitating said product includes
2 regulating the flow of said compressed fluid used to agitate said product.

1 17. A method according to Claim 10, further comprising the step of regulating the flow
2 of said agitating fluid used to agitate said product.

1 18. A method according to Claim 10, wherein said step of agitating said product includes
2 agitating said product near the bottom of said vacuum chamber.

1 19. A method according to Claim 10, wherein said product is a wine product.

1 20. A pump comprising:
2 vacuum means for drawing a product and a fluid mixture into a chamber;
3 separating means for separating said product from said fluid;
4 agitating means for agitating said product; and
5 removal means for removing said product from said chamber.